



PROJECT NO. 34410.1.25			ID. R-2248E			COUNTY MECKLENBURG			GEOLOGIST Todd, R. W.			
SITE DESCRIPTION CHARLOTTE OUTER LOOP									GROUND WTR (ft)			
BORING NO. B17			STATION N/A			OFFSET N/A			ALIGNMENT -L-			
COLLAR ELEV. 760.2 ft			TOTAL DEPTH 23.9 ft			NORTHING 593,765			EASTING 1,472,500			
DRILL MACHINE CME-550X			DRILL METHOD H.S. Augers						HAMMER TYPE Automatic			
START DATE 03/05/10			COMP. DATE 03/05/10			SURFACE WATER DEPTH N/A			DEPTH TO ROCK N/A			
ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	25	50	75	100			ELEV. (ft) DEPTH (ft)
765												
												760.2 GROUND SURFACE 0.0
756.7	3.4											RESIDUAL TAN STIFF MOIST SANDY CLAY (A-6) 756.9 3.3
		4	5	7						M		RESIDUAL TAN MED. DENSE TO DENSE MOIST SILTY SAND (A-2-4)
751.7	8.4									M		
		5	17	24						M		
746.8	13.4									M		
		17	17	17						M		
741.8	18.4									M		
		18	21	26						M		
736.8	23.4									M		738.0 22.1
		100/5										736.3 23.9
												WEATHERED ROCK SEVERLY WEATHERED CRYSTALLINE ROCK
												Boring Terminated at Elevation 736.3 ft SEVERLY WEATHERED CRYSTALLINE ROCK
												BORING LOCATED AT METRIC STATION 433+00.0 -L- 14.0M LT.



PROJECT NO. 34410.1.25				ID. R-2248E				COUNTY MECKLENBURG				GEOLOGIST Todd, R. W.					
SITE DESCRIPTION CHARLOTTE OUTER LOOP												GROUND WTR (					
BORING NO. B18				STATION N/A				OFFSET N/A				ALIGNMENT -L-				0 HR. N/A	
COLLAR ELEV. 754.6 ft				TOTAL DEPTH 22.5 ft				NORTHING 593,756				EASTING 1,472,647				24 HR. Dr.	
DRILL MACHINE CME-550X				DRILL METHOD H.S. Augers								HAMMER TYPE Automatic					
START DATE 03/05/10				COMP. DATE 03/05/10				SURFACE WATER DEPTH N/A				DEPTH TO ROCK 22.5 ft					
ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION				
		0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)			
755													754.6	GROUND SURFACE	0.		
751.7	2.9												M M M M	ALLUVIAL TAN SOFT TO HARD MOIST SANDY CLAY (A-6)			
		2	2	2													
746.7	7.9																
		7	17	21													
741.7	12.9																
		10	18	41													
736.7	17.8																
		17	25	28													



PROJECT NO. 34410.1.25				ID. R-2248E				COUNTY MECKLENBURG				GEOLOGIST Todd, R. W.					
SITE DESCRIPTION CHARLOTTE OUTER LOOP												GROUND WTR (ft)					
BORING NO. B19				STATION N/A				OFFSET N/A				ALIGNMENT -L-				0 HR. N/A	
COLLAR ELEV. 759.8 ft				TOTAL DEPTH 15.0 ft				NORTHING 593,669				EASTING 1,472,498				24 HR. Dry	
DRILL MACHINE CME-550X				DRILL METHOD H.S. Augers								HAMMER TYPE Automatic					
START DATE 03/05/10				COMP. DATE 03/05/10				SURFACE WATER DEPTH N/A				DEPTH TO ROCK 15.0 ft					
ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION			DEPTH (ft)	
		0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)				
760													759.8	GROUND SURFACE		0.0	
757.2	2.7												758.2	RESIDUAL BRN. STIFF MOIST SANDY CLAY (A-6)		1.6	
		1	1	1							W		RESIDUAL BRN. MED. DENSE TO DENSE MOIST SILTY SAND (A-2-4)				
752.2	7.7										M						
		4	7	12													
747.2	12.7										M		745.5			14.4	
		11	17	29									744.8	WEATHERED ROCK SEVERELY WEATHERED CRYSTALLINE ROCK		15.0	
Boring Terminated BY AUGER REFUSAL at Elevation 744.8 ft CRYSTALLINE ROCK																	
BORING LOCATED AT METRIC STATION 433+01.0 -L- 15.0M RT.																	



PROJECT NO. 34410.1.25			ID. R-2248E			COUNTY MECKLENBURG			GEOLOGIST Todd, R. W.			
SITE DESCRIPTION CHARLOTTE OUTER LOOP									GROUND WTR (ft)			
BORING NO. B20			STATION N/A			OFFSET N/A			ALIGNMENT -L-			
COLLAR ELEV. 753.3 ft			TOTAL DEPTH 16.5 ft			NORTHING 593,661			EASTING 1,472,645			
DRILL MACHINE CME-550X			DRILL METHOD H.S. Augers						HAMMER TYPE Automatic			
START DATE 03/05/10			COMP. DATE 03/05/10			SURFACE WATER DEPTH N/A			DEPTH TO ROCK 16.5 ft			
ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	25	50	75	100			ELEV. (ft) DEPTH (ft)
755												
750.3	3.0											753.3 GROUND SURFACE 0.0
		1	2	1						M		ALLUVIAL BRN. SOFT MOIST SANDY CLAY (A-6)
745.3	8.0									M		748.5 4.8
		15	16	17						M		RESIDUAL BRN. HARD MOIST SANDY CLAY (A-6)
740.3	13.0									M		
		11	15	18								
												736.8 16.5
Boring Terminated BY AUGER REFUSAL at Elevation 736.8 ft CRYSTALLINE ROCK BORING LOCATED AT METRIC STATION 433+46.0 -L- 15.0M RT.												



PROJECT NO. 34410.1.25				ID. R-2248E				COUNTY MECKLENBURG				GEOLOGIST Todd, R. W.					
SITE DESCRIPTION CHARLOTTE OUTER LOOP												GROUND WTR (ft)					
BORING NO. B22				STATION N/A				OFFSET N/A				ALIGNMENT -L-				0 HR. N/A	
COLLAR ELEV. 701.8 ft				TOTAL DEPTH 10.1 ft				NORTHING 592,141				EASTING 1,476,724				24 HR. 2.0	
DRILL MACHINE CME-550X				DRILL METHOD H.S. Augers								HAMMER TYPE Automatic					
START DATE 03/04/10				COMP. DATE 03/04/10				SURFACE WATER DEPTH N/A				DEPTH TO ROCK 10.1 ft					
ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION				
		0.5ft	0.5ft	0.5ft	0	25	50	75	100				ELEV. (ft)	DEPTH (ft)			
705																	
698.4	3.4																
		1	0	0													
693.4	8.4																
		11	18	100/0.9													



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

SHEET

PROJECT NO. 34410.1.25		ID. R-2248E		COUNTY MECKLENBURG		GEOLOGIST Todd, R. W.	
SITE DESCRIPTION CHARLOTTE OUTER LOOP							GROUND WTR (ft)
BORING NO. B45		STATION N/A		OFFSET N/A		ALIGNMENT -L-	
COLLAR ELEV. 697.2 ft		TOTAL DEPTH 28.8 ft		NORTHING 591,662		EASTING 1,477,035	
DRILL MACHINE CME-550X		DRILL METHOD NW Casing W/SPT & Core				HAMMER TYPE Automatic	
START DATE 03/01/10		COMP. DATE 03/03/10		SURFACE WATER DEPTH N/A		DEPTH TO ROCK 9.1 ft	

ELEV (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	DEPTH (ft)		
		0.5ft	0.5ft	0.5ft	0	25	50	75	100						
700															
													697.2	GROUND SURFACE	0.0
														ALLUVIAL BRN. V. SOFT WET SANDY SILT (A-4)	
692.4	4.8	2	1	2									690.0		7.2
													688.1	WEATHERED ROCK SEVERELY WEATHERED ROCK	9.1
														CRYSTALLINE ROCK GRAY/BRN. MOD. SEV. TO SLI. WEATH. SOFT TO HARD GRANITE.	
													682.6		14.6
														CRYSTALLINE ROCK GRAY/BRN. MOD. SEV. TO FRESH MED. HARD TO V. HARD GRANITE.	
										RS-14			678.0		19.2
														CRYSTALLINE ROCK GRAY FRESH V. HARD GRANITE.	
										RS-15			673.2		24.0
														CRYSTALLINE ROCK GRAY FRESH V. HARD GRANITE.	
													668.4		28.8
														Boring Terminated at Elevation 668.4 ft CRYSTALLINE ROCK	
														BORING LOCATED AT METRIC STATION 15+15 RPCY22 CENTERLINE.	



NCDOT GEOTECHNICAL ENGINEERING UNIT CORE BORING REPORT

SHEET

PROJECT NO. 34410.1.25		ID. R-2248E		COUNTY MECKLENBURG		GEOLOGIST Todd, R. W.	
SITE DESCRIPTION CHARLOTTE OUTER LOOP							GROUND WTR (ft)
BORING NO. B45		STATION N/A		OFFSET N/A		ALIGNMENT -L-	0 HR. N/A
COLLAR ELEV. 697.2 ft		TOTAL DEPTH 28.8 ft		NORTHING 591,662		EASTING 1,477,035	24 HR. 2.4
DRILL MACHINE CME-550X		DRILL METHOD NW Casing W/SPT & Core				HAMMER TYPE Automatic	
START DATE 03/01/10		COMP. DATE 03/03/10		SURFACE WATER DEPTH N/A		DEPTH TO ROCK 9.1 ft	
CORE SIZE NW		TOTAL RUN 19.7 ft		DRILLER Smith, M. L.			

ELEV (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		SAMP. NO.	STRATA		LOG	DESCRIPTION AND REMARKS	DEPTH (ft)
				REC. (ft) %	RQD (ft) %		REC. (ft) %	RQD (ft) %			
688.09											
688.1	9.1	5.5	1:00/1.0	(2.9)	(1.3)					Begin Coring @ 9.1 ft	
			1:00/1.0	52%	24%					CRYSTALLINE ROCK	9.1
			1:00/1.0							GRAY/BRN. MOD. SEV. TO SLI. WEATH. SOFT TO HARD GRANITE.	
682.6	14.6		1:00/1.0								14.6
		4.6	1:00/1.2	(4.5)	(3.9)					CRYSTALLINE ROCK	
			1:00/1.0	98%	84%					GRAY/BRN. MOD. SEV. TO FRESH MED. HARD TO V. HARD GRANITE.	
678.0	19.2		1:00/1.0			RS-14					19.2
		4.8	1:00/0.7	(4.8)	(4.8)					CRYSTALLINE ROCK	
			1:00/1.0	100%	100%					GRAY FRESH V. HARD GRANITE.	
673.2	24.0		1:00/1.0			RS-15					24.0
		4.8	1:00/0.9	(4.8)	(4.7)					CRYSTALLINE ROCK	
			1:00/1.0	100%	97%					GRAY FRESH V. HARD GRANITE.	
668.4	28.8		1:00/1.0								28.8
			1:00/0.9							Boring Terminated at Elevation 668.4 ft CRYSTALLINE ROCK	
										BORING LOCATED AT METRIC STATION 15+15 RPCY22 CENTERLINE.	

34410.1.25 (R-2248E)
CHARLOTTE OUTER LOOP, BORING B-45
N 591,660.52 E 1,477,032.46 (ENGLISH)
(METRIC) 15+15 -RPCY22-, CENTERLINE

